

WHAT IS CLAIMED IS:

1. A battery pack for powering a communication probe used for optical communication between an external device and a diagnostic tool comprising:
 - a battery for powering a communication probe; and
 - a switch for selectively coupling the battery to a cable for delivering electrical power from the battery to the communication probe, the switch being coupled to the power leads of the battery and also being coupled to a power status signal from a diagnostic tool so that the switch selectively couples the battery to the cable so electrical power may be delivered to the communication probe in response to the power status signal from the diagnostic tool indicating the diagnostic tool is in an active state.
2. The battery pack of claim 1 further comprising:
 - a battery charger circuit coupled to the battery, the battery charger circuit being adapted to couple to an AC power source so the battery charger may be used to re-charge the battery when the battery charger circuit is coupled to the AC power source.
3. The battery pack of claim 1, wherein the power status signal is generated by a watchdog timer associated with the diagnostic tool in response to expiration of the watchdog timer.

4. The battery pack of claim 1, wherein the battery is a lithium battery.
5. The battery pack of claim 1, wherein the battery is a disposable battery.

6. The battery pack of claim 5 further comprising:
 - a positive and negative interconnect for directly coupling the battery to the communication probe; and
 - the switch selectively couples the battery to the positive and negative interconnect in response to the power status signal being active.

7. The battery pack of claim 1 wherein the battery pack directly couples to a diagnostic tool.

8. A method for conserving power in a battery that powers a communication probe used for optical communication between an external device and a diagnostic tool comprising:
 - selectively coupling a battery to a communication probe to power the communication probe in response to a power status signal from a diagnostic tool indicating the diagnostic tool is in an active state.

9. The method of claim 8 further comprising:
 - re-charging the battery from an external AC power source.

10. The method of claim 8 further comprising:

generating a power status signal in response to user activity at the diagnostic tool.

11. The method of claim 8, wherein the battery is selectively coupled to the communication probe through a cable.

12. The method of claim 8, wherein the battery is selectively coupled to the communication probe through a positive and negative interconnect.

13. A diagnostic system for an appliance comprising:

a diagnostic tool;
a low intensity optical communication probe;
a battery for powering the low intensity optical communication probe;
a switch for selectively coupling the battery to the low intensity optical communication probe to provide power from the battery to the communication probe, the switch selectively coupling the battery to the communication probe in response to a power status signal generated from the diagnostic tool.

14. The system of claim 13 further comprising:

a watchdog timer associated with the diagnostic tool for generating the power status signal.

15. The system of claim 14 wherein the watchdog timer generates an active status for the power status signal in response to user activity at the diagnostic tool.

16. The system of claim 13 further comprising:

a re-charging circuit for converting AC power to a form for recharging the battery.

17. The system of claim 13 further comprising:

a housing in which the battery and switch are mounted, the housing being directly coupled to the diagnostic tool.

18. A method for enabling optical communication between a diagnostic tool and a communication probe comprising:

powering a low intensity optical communication probe with a battery;

selectively de-coupling the battery from the low intensity optical communication probe in response to a power status signal generated by a diagnostic tool.

19. The method of claim 18 further comprising:

generating the power status signal in response to user activity at the diagnostic tool.

20. The method of claim 18 further comprising:

converting AC power to a form for re-charging the battery; and

applying the converted AC power to the battery to re-charge the battery.